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## [RAW SEQUENCE LISTING]

PATENT APPLICATION: US/09/473,551A

DATE: 05/01/2001.

TIME: 17:54:08

Input Set : A:\60299879.txt

Output Set: N:\CRF3\05012001\I473551A.raw

3 <110> APPLICANT: MILBRANDT, Jeffrey D.  
 4       BALOH, Robert H.  
 6 <120> TITLE OF INVENTION: GFR-alpha-1-RET Specific Agonists and Methods Therefor  
 8 <130> FILE REFERENCE: 6029-9879  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/473,551A  
 C--> 11 <141> CURRENT FILING DATE: 1999-12-28  
 13 <160> NUMBER OF SEQ ID NOS: 32  
 15 <170> SOFTWARE: PatentIn Ver. 2.0  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 89  
 19 <212> TYPE: PRT  
 20 <213> ORGANISM: Homo sapiens  
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 27        20               25               30  
 29 Pro Arg Gly Ala Arg Thr Gln His Gly Leu Ala Leu Ala Arg Leu Gln  
 30        35               40               45  
 32 Gly Gln Gly Arg Ala His Gly Gly Pro Cys Cys Arg Pro Thr Arg Tyr  
 33        50               55               60  
 35 Thr Asp Val Ala Phe Leu Asp Asp Arg His Arg Trp Gln Arg Leu Pro  
 36        65               70               75               80  
 38 Gln Leu Ser Ala Ala Cys Gly Cys  
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 44 <212> TYPE: PRT  
 45 <213> ORGANISM: Mouse  
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 49        1               5               10               15  
 51 Tyr Ala Ser Glu Glu Lys Val Ile Phe Arg Tyr Cys Ala Gly Ser Cys  
 52        20               25               30  
 54 Pro Gln Glu Ala Arg Thr Gln His Ser Leu Val Leu Ala Arg Leu Arg  
 55        35               40               45  
 57 Gly Arg Gly Arg Ala His Gly Arg Pro Cys Cys Gln Pro Thr Ser Tyr  
 58        50               55               60  
 60 Ala Asp Val Thr Phe Leu Asp Asp Gln His His Trp Gln Gln Leu Pro  
 61        65               70               75               80  
 63 Gln Leu Ser Ala Ala Cys Gly Cys  
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 68 <211> LENGTH: 89  
 69 <212> TYPE: PRT  
 70 <213> ORGANISM: RAT  
 72 <400> SEQUENCE: 3

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73 Cys Arg Leu Trp Ser Leu Thr Leu Pro Val Ala Glu Leu Gly Leu Gly  
74 1 5 10 15  
76 Tyr Ala Ser Glu Glu Lys Ile Ile Phe Arg Tyr Cys Ala Gly Ser Cys  
77 20 25 30  
79 Pro Gln Glu Val Arg Thr Gln His Ser Leu Val Leu Ala Arg Leu Arg  
80 35 40 45  
82 Gly Gln Gly Arg Ala His Gly Arg Pro Cys Cys Gln Pro Thr Ser Tyr  
83 50 55 60  
85 Ala Asp Val Thr Phe Leu Asp Asp His His His Trp Gln Gln Leu Pro  
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88 Gln Leu Ser Ala Ala Ala Cys Gly Cys  
89 85  
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94 <212> TYPE: PRT  
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99 1 5 10 15  
101 Tyr Glu Thr Lys Glu Glu Leu Ile Phe Arg Tyr Cys Ser Gly Ser Cys  
102 20 25 30  
104 Asp Ala Ala Glu Thr Thr Tyr Asp Lys Ile Leu Lys Asn Leu Ser Arg  
105 35 40 45  
107 Asn Arg Arg Leu Val Ser Asp Lys Val Gly Gln Ala Cys Cys Arg Pro  
108 50 55 60  
110 Ile Ala Phe Asp Asp Asp Leu Ser Phe Leu Asp Asp Asn Leu Val Tyr  
111 65 70 75 80  
113 His Ile Leu Arg Lys His Ser Ala Lys Arg Cys Gly Cys  
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118 <211> LENGTH: 93  
119 <212> TYPE: PRT  
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126 Tyr Glu Thr Lys Glu Glu Leu Ile Phe Arg Tyr Cys Ser Gly Ser Cys  
127 20 25 30  
129 Glu Ser Ala Glu Thr Met Tyr Asp Lys Ile Leu Lys Asn Leu Ser Arg  
130 35 40 45  
132 Ser Arg Arg Leu Thr Ser Asp Lys Val Gly Gln Ala Cys Cys Arg Pro  
133 50 55 60  
135 Val Ala Phe Asp Asp Asp Leu Ser Phe Leu Asp Asp Asn Leu Val Tyr  
136 65 70 75 80  
138 His Ile Leu Arg Lys His Ser Ala Lys Arg Cys Gly Cys  
139 85 90  
142 <210> SEQ ID NO: 6  
143 <211> LENGTH: 93  
144 <212> TYPE: PRT

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Input Set : A:\60299879.txt

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 151 Tyr Glu Thr Lys Glu Glu Leu Ile Phe Arg Tyr Cys Ser Gly Ser Cys  
 152 20 25 30  
 154 Glu Ala Ala Glu Thr Met Tyr Asp Lys Ile Leu Lys Asn Leu Ser Arg  
 155 35 40 45  
 157 Ser Arg Arg Leu Thr Ser Asp Lys Val Gly Gln Ala Cys Cys Arg Pro  
 158 50 55 60  
 160 Val Ala Phe Asp Asp Asp Leu Ser Phe Leu Asp Asp Ser Leu Val Tyr  
 161 65 70 75 80  
 163 His Ile Leu Arg Lys His Ser Ala Lys Arg Cys Gly Cys  
 164 85 90  
 167 <210> SEQ ID NO: 7  
 168 <211> LENGTH: 94  
 169 <212> TYPE: PRT  
 170 <213> ORGANISM: Homo sapiens  
 172 <400> SEQUENCE: 7  
 173 Cys Gly Leu Arg Glu Leu Glu Val Arg Val Ser Glu Leu Gly Leu Gly  
 174 1 5 10 15  
 176 Tyr Ala Ser Asp Glu Thr Val Leu Phe Arg Tyr Cys Ala Gly Ala Cys  
 177 20 25 30  
 179 Glu Ala Ala Ala Arg Val Tyr Asp Leu Gly Leu Arg Arg Leu Arg Gln  
 180 35 40 45  
 182 Arg Arg Arg Leu Arg Arg Glu Arg Val Arg Ala Gln Pro Cys Cys Arg  
 183 50 55 60  
 185 Pro Thr Ala Tyr Glu Asp Glu Val Ser Phe Leu Asp Ala His Ser Arg  
 186 65 70 75 80  
 188 Tyr His Thr Val His Glu Leu Ser Ala Arg Glu Cys Ala Cys  
 189 85 90  
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 193 <211> LENGTH: 94  
 194 <212> TYPE: PRT  
 195 <213> ORGANISM: Mouse  
 197 <400> SEQUENCE: 8  
 198 Cys Gly Leu Arg Glu Leu Glu Val Arg Val Ser Glu Leu Gly Leu Gly  
 199 1 5 10 15  
 201 Tyr Thr Ser Asp Glu Thr Val Leu Phe Arg Tyr Cys Ala Gly Ala Cys  
 202 20 25 30  
 204 Glu Ala Ala Ile Arg Ile Tyr Asp Leu Gly Leu Arg Arg Leu Arg Gln  
 205 35 40 45  
 207 Arg Arg Arg Val Arg Arg Glu Arg Ala Arg Ala His Pro Cys Cys Arg  
 208 50 55 60  
 210 Pro Thr Ala Tyr Glu Asp Glu Val Ser Phe Leu Asp Val His Ser Arg  
 211 65 70 75 80  
 213 Tyr His Thr Leu Gln Glu Leu Ser Ala Arg Glu Cys Ala Cys  
 214 85 90  
 217 <210> SEQ ID NO: 9

RAW SEQUENCE LISTING  
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Input Set : A:\60299879.txt  
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218 <211> LENGTH: 96  
 219 <212> TYPE: PRT  
 220 <213> ORGANISM: Homo sapiens  
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 224 1 5 10 15  
 226 His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys  
 227 20 25 30  
 229 Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly  
 230 35 40 45  
 232 Ala Gly Ala Leu Arg Pro Pro Gly Ser Arg Pro Val Ser Gln Pro  
 233 50 55 60  
 235 Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn  
 236 65 70 75 80  
 238 Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys  
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 246 <211> LENGTH: 96  
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 250 <400> SEQUENCE: 10  
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 252 1 5 10 15  
 254 His Ser Ser Asp Glu Leu Ile Arg Phe Arg Phe Cys Ser Gly Ser Cys  
 255 20 25 30  
 257 Arg Arg Ala Arg Ser Gln His Asp Leu Ser Leu Ala Ser Leu Leu Gly  
 258 35 40 45  
 260 Ala Gly Ala Leu Arg Ser Pro Pro Gly Ser Arg Pro Ile Ser Gln Pro  
 261 50 55 60  
 263 Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn  
 264 65 70 75 80  
 266 Ser Thr Trp Arg Thr Val Asp His Leu Ser Ala Thr Ala Cys Gly Cys  
 267 85 90 95  
 273 <210> SEQ ID NO: 11  
 274 <211> LENGTH: 109  
 275 <212> TYPE: PRT  
 276 <213> ORGANISM: MURINE  
 278 <400> SEQUENCE: 11  
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 280 1 5 10 15  
 282 Lys Gly Ser Cys Arg Leu Trp Ser Leu Thr Leu Pro Val Ala Glu Leu  
 283 20 25 30  
 285 Gly Leu Gly Tyr Ala Ser Glu Glu Lys Val Ile Phe Arg Tyr Cys Ala  
 286 35 40 45  
 288 Gly Ser Cys Pro Gln Glu Ala Arg Thr Gln His Ser Leu Val Leu Ala  
 289 50 55 60  
 291 Arg Leu Arg Gly Arg Gly Arg Ala His Gly Arg Pro Cys Cys Gln Pro  
 292 65 70 75 80  
 294 Thr Ala Phe Asp Asp Asp Val Thr Phe Leu Asp Asp Gln His His Tyr

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304	<213> ORGANISM: MURINE		
306	<400> SEQUENCE: 12		
307	Cys Arg Leu Trp Ser Leu Thr Leu Pro Val Ala Glu Leu Gly Leu Gly		
308	1 5 10 15		
310	Tyr Ala Ser Glu Glu Lys Val Ile Phe Arg Tyr Cys Ala Gly Ser Cys		
311	20 25 30		
313	Pro Gln Glu Ala Arg Thr Gln His Ser Leu Val Leu Ala Arg Leu Arg		
314	35 40 45		
316	Gly Arg Gly Arg Ala His Gly Arg Pro Cys Cys Gln Pro Thr Ala Phe		
317	50 55 60		
319	Asp Asp Asp Val Thr Phe Leu Asp Asp Gln His His Tyr His Ile Leu		
320	65 70 75 80		
322	Arg Lys His Ser Ala Ala Ala Cys Gly Cys		
323	85 90		
326	<210> SEQ ID NO: 13		
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332	Ala Leu Ala His His His His His Asp Tyr Lys Asp Asp Asp Asp		
333	1 5 10 15		
335	Lys Gly Ser Cys Arg Leu Trp Ser Leu Thr Leu Pro Val Ala Glu Leu		
336	20 25 30		
338	Gly Leu Gly Tyr Ala Ser Glu Glu Lys Val Ile Phe Arg Tyr Cys Ala		
339	35 40 45		
341	Gly Ser Cys Pro Gln Glu Ala Arg Thr Gln His Ser Leu Val Leu Ala		
342	50 55 60		
344	Arg Leu Arg Gly Arg Gly Arg Ala His Gly Arg Pro Cys Cys Gln Pro		
345	65 70 75 80		
347	Thr Ala Tyr Glu Asp Glu Val Thr Phe Leu Asp Asp Gln His His Tyr		
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350	His Thr Leu Gln Glu Leu Ser Ala Ala Ala Cys Gly Cys		
351	100 105		
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361	1 5 10 15		
363	Tyr Ala Ser Glu Glu Lys Val Ile Phe Arg Tyr Cys Ala Gly Ser Cys		
364	20 25 30		
366	Pro Gln Glu Ala Arg Thr Gln His Ser Leu Val Leu Ala Arg Leu Arg		

**VERIFICATION SUMMARY** DATE: 05/01/2001  
**PATENT APPLICATION:** US/09/473,551A **TIME:** 17:54:09

Input Set : A:\60299879.txt  
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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date